Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_\_

Use pg 218-227 to answer the following questions

1. What are ocean currents?

2. Where do surface currents occur at and what causes them?

3. What are the three factors that affect surface currents?

1

2

3

4. The deflection of moving objects from a straight path due to earth’s rotation is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Give two examples of the Coriolis effect.

1

2

6. What are global winds?

7. What powers surface currents?

8. How do deep currents form?

9. What causes water to have different densities?

10. What are convection currents and how are they caused?

11. How do convection currents transfer energy?

12. What is upwelling? Why is it important for ocean life?

13. Explain two things ocean currents transport and why it’s important for living things.

**Part A: Surface Currents: Highways of the Sea**

## **Procedure**

1. Label each of the currents on the blank ocean currents map (next page) by writing the name next to the arrow.

2. Choose two different colored pencils. Shade in the arrows that represent the cold-water currents in one color and the warm-water currents in another color. Include a key to identify which colors represent the cold and warm currents.

|  |  |  |
| --- | --- | --- |
| **Number** | **Name of Surface Current** | **Characteristic Temperature of Water Transported by Current** |
| 1 | Kuroshio Current | warm |
| 2 | California Current | cold |
| 3 | East Australian Current | warm |
| 4 | Antarctic Circumpolar Current | cold |
| 5 | Peru Current (Humboldt) | cold |
| 6 | Gulf Stream | warm |
| 7 | Canary Current | cold |
| 8 | Brazil Current | warm |
| 9 | Benguela Current | cold |

**Results**